Serial No. 07/969,592

N
P
N
K

IN THE CLAIMS

Amend claims 1, 3, 5, and 8 as follows.

CM 1. (Amended) A method of recovering, at a destination node of a packet-based telecommunications network, the timing clock of a service input at a source node of said packet-based telecommunications network, the destination node and the source node having a common network clock, comprising the steps of:

a1

P1 (a) at the source node, dividing the timing clock of the service input by a factor of an integer N to form residual time stamp (RTS) periods;

P1 (b) at the source node, counting the network clock cycles modulo 2^P, B where 2^P is less than the number of network clock cycles within an RTS period B L and P is chosen so that the 2^P counts uniquely and unambiguously represent the range of possible network clock cycles within an RTS period;

P1 (c) transmitting from the source node to the destination node an RTS at the end of each RTS period that is equal to the modulo 2^P B count of network clock cycles at that time;

P1 (d) determining from the RTSs received at the destination node, the number of network clock cycles in each RTS period;

P1 (e) generating a pulse signal from the network clock at the destination node in which the period between each pulse in the pulse signal equals the determined number of network clock cycles in the corresponding RTS period; and

P1 (f) multiplying the frequency of the pulse signal generated in step (e) by [a factor of N.] the same factor of an integer N used in step (a) to recover the timing clock of the service input.

N
P
a2 cont'd
N
K

3. (Amended) A method of recovering, at a destination node of a packet-based telecommunications network, the timing clock of a service input at a source node of said packet-based telecommunications network, the destination node and the source node having a common network clock, comprising the steps of:

(a) at the source node, dividing the timing clock of the service input by a factor of an integer N to form residual time stamp (RTS) periods;

(b) at the source node, dividing the network clock by a rational factor to form a derived network clock;

(c) at the source node, counting the derived network clock cycles modulo 2^P, where 2^P is less than the number of derived network clock cycles within an RTS period and P is chosen so that the 2^P counts uniquely and

12

a2 cont

unambiguously represent the range of possible derived network clock cycles within an RTS period;

(d) transmitting from the source node to the destination node an RTS at the end of each RTS period that is equal to the modulo 2^P count of derived network clock cycles at that time;

(e) at the destination node, dividing the network clock by the same rational factor used at the source node to form a derived network clock equal to the derived network clock at the source node;

(f) determining from the RTSs received at the destination node, the number of derived network clock cycles in each RTS period;

(g) generating a pulse signal from the derived network clock at the destination node in which the period between each pulse in the pulse signal equals the determined number of derived network clock cycles in the corresponding RTS period; and

(h) multiplying the frequency of the pulse signal generated in step (g) by [a factor of *N*.] the same factor of an integer *N* used in step (a) to recover the timing clock of the service input.

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a3 cont'd

5. Apparatus for recovering, at a destination node of a packet-based telecommunications network, the timing clock of a service input at a source node of said packet-based telecommunications network, the destination node and the source node having a common network clock, comprising at the source node:

dividing means for dividing the timing clock of the service input by a factor of an integer *N* to form residual time stamp (RTS) periods;

counting means connected to the network clock for counting network clock cycles modulo 2^P, where 2^P is less than the number of network clock cycles within an RTS period and *P* is chosen so that the 2^P counts uniquely and unambiguously represent the range of possible network clock cycles within an RTS period; and

transmitting means, responsive to the RTS periods formed by said dividing means and the count of said counting means, for transmitting over the telecommunications network an RTS at the end of each RTS period that is equal to the modulo 2^P count of network clock [pulses] cycles at that time;

and comprising at the destination node:

receiving means for receiving the RTSs transmitted over the telecommunications network by said transmitting means;

a3 cont'd

converting means responsive to the received RTSs and the network clock for converting the received RTSs into a pulse signal in which the periods between pulses are determined from the numbers of network clock cycles associated with [those RTS counts] the counts of network clock cycles within said RTS periods ; and

means for multiplying [by a factor of N] the frequency of the pulse signal generated by said converting means [for converting.] by the same factor of an integer N used in said dividing means for recovering the timing clock of the service input.

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a4 cont'd

8. (Amended) Apparatus for recovering , at a destination node of a packet-based telecommunications network , the timing clock of a service input at a source node of said packet-based telecommunications network, the destination node and the source node having a common network clock, comprising at the source node:

first dividing means for dividing the timing clock of the service input by a factor of an integer N to form residual time stamp (RTS) periods;

second dividing means for dividing the network clock by a rational factor to form a derived network clock;

counting means connected to the network clock for counting derived network clock cycles modulo 2^P, where 2^P is less than the number of derived network clock cycles within an RTS period and P is chosen so that the 2^P counts uniquely and unambiguously represent the range of possible derived network clock cycles within an RTS period; and

transmitting means , responsive to the RTS periods formed by said first dividing means and the count of said counting means, for transmitting over the telecommunications network an RTS at the end of each RTS period that is equal to the modulo 2^P count of derived network clock [pulses] cycles at that time;

and comprising at the destination node:

receiving means for receiving the RTSs transmitted over the telecommunications network by said transmitting means;

means for dividing the network clock by the same rational factor used at the source node to form a derived network clock;

converting means responsive to the received RTSs and the derived network clock for converting the received RTSs into a pulse signal in which the periods between pulses are determined from the numbers of derived network clock cycles associated with [those RTSs] the counts of derived network clock cycles